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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/967,208	09/28/2001	Mithat C. Dogan	015685.P123	6059

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EXAMINER

NGUYEN, DUNG X

ART UNIT PAPER NUMBER

2631

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/967,208	Applicant(s) DOGAN ET AL.	
	Examiner Dung X Nguyen	Art Unit 2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 13 is/are allowed.
- 6) ☒ Claim(s) 14 is/are rejected.
- 7) ☒ Claim(s) 15 - 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: “a” as recited in line 3 should be changed to “the”. Appropriate correction is required.
2. Claim 7 is objected to because of the following informalities: “a” as recited in line 2 should be changed to “the”. Appropriate correction is required.
3. Claim 14 is objected to because of the following informalities: “a” first appearance as recited in line 3 should be changed to “the”. Appropriate correction is required.
4. Claim 15 is objected to because of the following informalities: “a” first appearance as recited in line 2 should be changed to “the”. Appropriate correction is required.
5. Claim 16 is objected to because of the following informalities: “a” as recited in line 2 should be changed to “the”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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7. **Claim 14 is rejected** under 35 U.S.C. 102(e) as being anticipated by Li (US patent application publication # 2003/0021332 A1).

Regarding claim 14, Li discloses that a data store having stored (page # 5, first column, paragraph # 0056) therein a plurality of ordered sequences for use in generating training sequences, wherein the training sequence is generated by taking a number of elements of one of the plurality of ordered sequences in order, wherein the training sequence has at least one desired property when used by a peak to average power modulation format (page 3, second column, paragraphs # 0036 – 0038).

Allowable Subject Matter

8. **Claims 15 – 17 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the objection(s) set forth in this Office action, or in independent form including all of the limitations of the base claim and any intervening claims.

9. **Claims 1 - 13 would be allowable** if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding to the claimed invention, the prior art of record fails to show or render obvious of a method includes selecting a set of one or more original ordered sequences such that the set of ordered sequences has at least one desired property, creating a set of extended sequences, each based on an original ordered sequence by beginning with an element of the original sequence:, cyclically appending elements of the original sequence in order to obtain a desired extended sequence length, and modifying each extended sequence using a corresponding modifying sequence, such that the training sequence can be generated from any one of the modified extended sequences by beginning with any one element of any one modified extended sequence and taking each element of the any one sequence in order to obtain the training sequence.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US patent application publication documents:

Miller (US patent application publication # 2003/0081705 A1) discloses a compensation for non-linear distortion in a modem receiver.

MacFarlane Shearer, III et al. (US patent application publication # 2002/0193078 A1) discloses a remote power amplifier linearization.

Mody et al. (US patent application publication # 2002/0181509 A1) discloses time and frequency synchronization in multi-input, multi-output (MIMO) systems.

US patent documents:

Böhnke et al. (US patent # 6,738,443 B1) discloses an optimized synchronization preamble structure.

Cooley et al. (US patent # 6,208,630 B1) discloses a remote power amplifier linearization.

McCalister et al. (US patent # 6,104,761) discloses a constrained-envelope digital-communications transmission system and method therefor.

Ottersten et al. (US patent # 5,828,658) discloses a spectrally efficient high capacity wireless communication systems with spatio-temporal processing.

Erdol et al. (US patent # 5,103,427) discloses a method and its corresponding apparatus for generating high-resolution data and echo identification.

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Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour H. Mohammad can be reached on (571) 272-3021. The fax phone numbers for this group is (571) 273-3021.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

January 06, 2005.


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER